## Arizona and COVID-19: Spring 2022

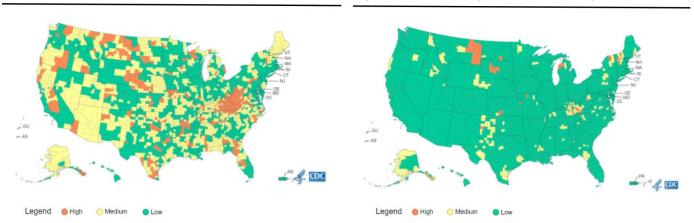
Dr. Howard J. Eng Associate Professor in Public Health (retired)

In 2020 and 2021, the lowest COVID-19 case numbers occurred during the spring. We expect the same for this spring. This is a good time to build up your immunity by improving your health. You should eat healthy, exercise regularly, stay hydrated – drink plenty of water, enjoy the outdoors, reduce your stress levels, and get plenty of sleep and rest to build up your immune system.

The Centers for Disease Control and Prevention (CDC) reports the COVID-19 transmission risk level for Pima County and Arizona low on March 24 (see Figures 1 and 2). Low transmission level is no more than 10 cases per 100,000 people or a test positively less than 5% for seven days.

Figure 1. CDC Community Transmission Level Map: March 3, 2022

Figure 2. CDC Community Transmission Level Map: March 24, 2022



On March 23, 2022, Johns Hopkins reports 475,768,643 total cases and 6,104,405 deaths associated with COVID-19 in the world. There has been an increase of 11,862,190 cases during the past week (March 17 to 23). The U.S. has 79,844,430 cases and 974,830 deaths. In the previous week, there has been an increase of 212,722 cases.

The Arizona and Pima County weekly cases have been declining (see Figures 3 and 4). The United States 7-day positivity rate is 2.34% (CDC – March 23). The Arizona and Pima County positivity rates were 3% on March 13 (AzDHS).

Figure 3. Arizona Weekly COVID-19 Cases: January 1, 2020 to March 13, 2022

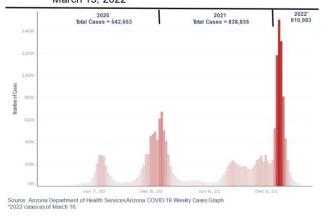
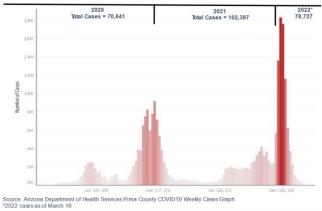


Figure 4. Pima County Weekly COVID-19 Cases: February 1, 2020 to March 13, 2022



Tables 1 and 2 show the state and county three-week COVID case, hospitalization, and death numbers.

Table 1. Arizona Total and Weekly Numbers of COVID-19 Cases, Hospitalizations, and Deaths

| Date       | Total Cases | Weekly Case | Total Hospital | Weekly Hospital | Total Deaths | Weekly Deaths |
|------------|-------------|-------------|----------------|-----------------|--------------|---------------|
| 03-09-2022 | 1,987,318   | 6,549       | 107,757        | 1,955           | 28,090       | 382           |
| 03-16-2022 | 1,992,471   | 5,153       | 108,057        | 300             | 28,547       | 457           |
| 03-23-2022 | 1,997,037   | 4,566       | 108,259        | 202             | 28,883       | 336           |

Source: Arizona Department of Health Services COVID-19 Dashboard. Arizona 2021 population est. is 7,285,370, July 1, 2021 - Arizona OEO.

Table 2. Pima County Total and Weekly Numbers of COVID-19 Cases, Hospitalizations, and Deaths

| Date       | Total Cases | Weekly Case | Total Hospital | Weekly Hospital | Total Deaths | Weekly Deaths |
|------------|-------------|-------------|----------------|-----------------|--------------|---------------|
| 03-09-2022 | 250,949     | 812         | 12,016         | 238             | 3,663        | 40            |
| 03-16-2022 | 251,765     | 816         | 12,018         | 2               | 3,722        | 59            |
| 03-23-2022 | 252,256     | 491         | 12,015         | -3              | 3,751        | 29            |

Source: Arizona Department of Health Services COVID-19 Dashboard. Pima County 2021 population est. is 1,058,318, July 1, 2021 – Ariz. OEO.

There are more than 10.83 billion vaccine doses administered in the world reported by Johns Hopkins (March 23). The CDC reports 255,001,325 individuals (76.8% of the U.S. population) receive 1-2 vaccine shots. There are 217,184,868 (65.4% of population) who are fully vaccinated. 88.9% of the senior (65 $\geq$ ) population (48,737,339) are fully vaccinated, and 32,678,961 (67.1%) received their boosters.

Arizona has administered 11.17 million COVID-19 vaccine doses (AzDHS). There are 4,340,837 (59.6%) in Arizona and 686,496 (64.9%) in Pima County who are fully vaccinated. 105.4 percent in the state and 103.7 percent in the county adults 65 and older have received 1 or 2 vaccine shots.

The numbers of severe cases, hospitalizations, and deaths will stay low as more people have COVID immunity. Those who are immune compromised, have severe medical conditions, adult 65 and older, work in high-risk settings, and are obese have the highest risk of getting a severe case and need to be fully vaccinated. High risk vaccinated people whose vaccine protection is waning need to get a booster shot to extend their immunity protection. The U.S. tracks several active variants (e.g., Omicron B.1.1.529 and BA.2 [Stealth Omicron], and Deltacron [Delta and Omicron – Hybrid]). There are pockets of Omicron BA.2 case outbreaks in the U.S.

Even though the vaccine reduces the risk of getting a severe COVID case, one can still get the virus. Staying healthy will keep your immunity level high and will reduce the risk of getting a severe case. You should maintain social distancing and wear a N95 or multi-layer face mask in high COVID-19 risk situations.

Two oral drugs, Pfizer (nirmatrelvir and ritonavir) and Merck (molnupiravir), used to treat mild-to-moderate COVID cases approved by the Food and Drug Administration (FDA). After diagnosis with COVID, the drugs are the most effective when taken within 5 days of symptoms onset.

The numbers of severe COVID-19 cases and deaths in Arizona and Pima County will be low because of the high numbers of high-risk individual and elderly vaccinations and the availability of drugs for treating the virus.

Be safe, and stay healthy, calm, and positive.